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ABSTRACT

Operation Waste Watch is a series of seven sequential learning units which addresses the subject of litter control and solid waste management. Each unit may be used in a variety of ways, depending on the needs and schedules of individual schools, and may be incorporated into various social studies, science, language arts, health, mathematics, and artistic activities. Each unit consists of a teacher's guide, filmstrip-cassette set, activity cards, test materials, duplicating masters, and a poster. This document contains the teacher's guide and activity cards for the first-grade unit entitled "Waste Out of Place." In this unit, students classify objects into two categories, "waste objects" and "useful objects." In addition, they learn to identify litter and dispose of their own waste items properly. Eighteen individual- and 10 class-activity cards are included. (CW)

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Operation Waste Watch

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Waste Out of Place

Level 1

Teacher Guide

DEPARTMENT OF WASTE MANAGEMENT
DIVISION OF LITTER CONTROL & RECYCLING
Eleventh Floor, Monroe Building
Richmond, Virginia 23219

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INTRODUCTION

OPERATION WASTE WATCH is a series of 7 sequential learning units which addresses the subjects of litter control and solid waste management. The curriculum, developed by the Division of Litter Control, Virginia's state litter prevention agency, is designed for classroom use in kindergarten through grade six.

Each OPERATION WASTE WATCH unit may be used in a variety of ways, depending on the needs and schedules of individual students and schools. Each unit is interdisciplinary in approach and may be incorporated into the various science, social studies, and health curricula Virginia teachers are presently using. Language arts, mathematics, and artistic activities are also highlighted. Each unit consists of a teacher's guide, filmstrip-cassette set, activity cards for class and individual student use, test materials, coloring book duplicating masters or comic books, and a colorful poster. Each elementary school in Virginia may receive a complete set of OPERATION WASTE WATCH without cost.

Flexibility is a key element of the OPERATION WASTE WATCH program. The sequence of the units within the curriculum may be changed to suit the abilities of students in the individual school. For this reason, teachers should become familiar with each of the units. Each instructor should also feel free to present concepts found in previous units. This is especially important for upper elementary students who are unfamiliar with the solid waste vocabulary and ideas presented in earlier units. The materials in each unit are color-coded for easy identification.

The teacher is free to shorten or lengthen the series of activity cards which are the heart of the unit, to suit her/his schedule or to build her/his own unit around the OPERATION WASTE WATCH auxiliary materials.

OPERATION WASTE WATCH is based on WASTE IN PLACE, the elementary school curriculum recently created by Keep America Beautiful. Solid waste management has become a very important environmental topic, but it is a subject which is too often superficially addressed in elementary textbooks.

WASTE IN PLACE was the first sequential elementary curriculum in the United States to address the concepts of proper waste handling. WASTE IN PLACE is available at cost to all localities around the country organized under the Clean Community System of Keep America Beautiful and to other interested groups. In developing OPERATION WASTE WATCH for Virginia's elementary schools, the Division of Litter Control changed the format of WASTE IN PLACE and designed supplementary activities and materials, including audiovisual aids.

OPERATION WASTE WATCH differs significantly from WASTE IN PLACE in its approach to the subject matter only in Levels 2 and 3. The Division believes that the ideas presented in these 2 units merit special emphasis in a study of solid waste problems in Virginia. Level 2, LITTER POLLUTION, addresses pollution problems associated with litter, while Level 3, TRASH TRENDS, examines packaging trends in relationship to current solid waste problems.

Field Testing

Two versions of OPERATION WASTE WATCH were piloted during the 1979-1980 school year in over 125 classrooms in 14 school systems with very positive results. A summary of the results of this field testing is available from the Division. Based on the results of the piloting, portions of the draft curriculum were revised in the fall of 1980.

Changing Littering Behavior

In addition to equipping students with important facts about litter and solid waste management, OPERATION WASTE WATCH is designed to help students modify their everyday waste disposal habits.

A study of students' waste disposal behavior was conducted in the spring of 1980 by two psychologists from Virginia Polytechnic Institute and State University, Mr. John Cope and Dr. Scott Geller. Their study confirmed that students learn from involvement with OPERATION WASTE WATCH. Student test performance following the curriculum was statistically higher than performance on the pretest. (Grades 1, 4 and 6 were the levels involved in the study.) Almost all of the teachers indicated that the OWW program materials were interesting to the students.

Most of the teachers felt that their students' littering be-

havior had decreased as a direct result of the program. The Division of Litter Control encourages teachers to emphasize recycling and the proper disposal of wastes. With continued positive reinforcement of proper behavior, and practice by the children of proper disposal techniques, teachers will see an even greater reduction in littering behavior.

The Virginia Plan: A Model Program to Prevent Littering

The DIVISION OF LITTER CONTROL was established in 1977 to control, prevent, and eliminate litter from the state to the maximum practical extent.

One-half of Division funds are granted annually to the localities of the state to finance local litter prevention programs. Over 90% of the counties and cities annually apply for and receive grant money from the Division. To assist these localities in organizing effective, comprehensive, long-range litter control programs, the Division has developed an organizational package, THE VIRGINIA PLAN: A MODEL PROGRAM TO PREVENT LITTERING, which is available to all community leaders interested in developing local programs. OPERATION WASTE WATCH is one component of THE VIRGINIA PLAN.

The Division is encouraging local litter prevention coordinators to work closely with schools in each locality. Many localities are promoting the implementation of OPERATION WASTE WATCH in their schools.

CONTACT THE DIVISION OF LITTER CONTROL FOR THE NAME AND PHONE NUMBER OF THE LITTER CONTROL COORDINATOR IN YOUR LOCALITY.

OPERATION WASTE WATCH UNIT TOPICS

Level K

Natural and Man-Made Objects

Students practice classification skills and learn to differentiate between natural and man-made objects in indoor and outdoor environments. They also learn to identify litter.

Level 1

Waste Out of Place

Students classify objects into two categories, "waste objects" and "useful objects." In addition, they learn to identify litter and dispose of their own waste items properly.

Level 2

Litter Pollution

Students study the negative effects of littering: injury to humans and animals, environmental pollution, and wasted resources. In addition, they explore a littered area, study the characteristics of litter, and learn how to clean it up.

Level 3

Trash Trends

Students trace historical changes in consumption and packaging. They also study the roles of packaging in everyday life and learn the meaning of "biodegradable."

Level 4

Let's Waste Less Waste

Students examine changes which can be made in their homes to reduce solid waste and litter. They also explore various sources of litter in their communities.

Level 5

Trash Treasures

Students discover that while many things are recycled by nature, quite a number of modern products must be recycled by people. They learn that recycling and resource recovery can help save important resources which are often lost when items are tossed into a trash receptacle.

Level 6

Community Solutions for Solid Waste Pollution

Students study their own locality's solid waste problems and design a model waste disposal plan for an imaginary community.

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LEVEL 1

RATIONALE

This series of instructional materials, developed by the Division of Litter Control, is designed to help elementary students deal effectively with solid waste problems encountered in their everyday lives. It will also prepare them to deal as adults with the growing problem of waste disposal facing each community. In Virginia, litter pickup alone is estimated to cost $25 million annually.

Litter is a very accessible pollutant and one even young children can comprehend. Children may be able to do very little to solve other environmental problems; but they can learn to dispose of waste properly, help to recycle some items, and come to understand how their own behavior affects the environment. A litter prevention unit is an excellent place to begin creating environmental awareness. From this point we can begin building in our youth a strong sense of environmental stewardship and pride.

The materials, activities, and instructional resources selected for the first grade students introduce the ideas that natural and man-made objects have uses in our world, and that the objects which are not useful are classified as waste objects. The unit emphasizes the development of scientific observation and classification skills essential to the ultimate goal of preparing young citizens to make rational decisions about personal and community solid waste disposal. This program follows objectives established in **Program Goals and Objectives for Elementary Science,** developed by the Virginia Department of Education in 1978.

If your students have not studied the kindergarten unit of OPERATION WASTE WATCH, feel free to borrow ideas, activities, and the filmstrip/cassette set from the kindergarten kit to prepare your students for the Level 1 ideas.

MAJOR IDEAS OF THE LEVEL 1 UNIT

1. Natural and man-made objects exist and have uses in our world.
2. Objects in our environment can be classified into useful and waste objects.

3. Litter is man-made or man-used solid waste which is in the wrong place.
4. People are responsible for disposing of waste properly.
5. Some objects last a long time and others change or disappear quickly.
6. Some waste objects can be reused or recycled.

UNIT OBJECTIVES

At the completion of this unit, the student will be able to:

1. CLASSIFY a set of objects into useful and waste subgroups;
2. IDENTIFY objects which are litter;
3. RECOGNIZE that people cause litter;
4. RECOGNIZE that littering is improper behavior;
5. RECOGNIZE that waste objects belong in a waste receptacle or litter bag;
6. PREDICT whether an object will change shape or form.

ELEMENTARY SCIENCE PROGRAM OBJECTIVES

The following program objectives should be emphasized in Level 1 science programs throughout Virginia and are incorporated into this unit (see reference 1, pg. 7):

1. Observing—The student will use all senses in the identification of objects and their properties, changes in properties, controlled observations, and ordering of a series of observations.
2. Classifying—The student will classify objects, actions, and phenomena.
3. Summarizing—The student will describe orally, in writing, or nonverbally, conclusions about the processes and products of scientific inquiry.
4. Valuing Scientific Inquiry—The student will participate in science activities, accept evidence gathered through scientific methods, and value critical thinking.

INSTRUCTIONAL STRATEGY

1. Review this teacher's guide and study all unit components thoroughly. The activity cards are the heart of the unit. Also become familiar with the other OPERATION WASTE WATCH units.
2. Decide which elements of the unit kit and which activity cards you will use. Add your own ideas as necessary or

pull activities from OPERATION WASTE WATCH UNITS on other grade levels.

3. Prepare all necessary materials and arrange for any outside speakers or field trips.
4. **Be sure to find out what your community is doing to fight the littering problem. Contact the Division of Litter Control or your local government.**
5. Administer the pretest to your students. Use the results to modify your unit plans as necessary.
6. Briefly discuss the topic and title of the unit with your class. Tell the students about some of the activities they will be involved in. Review with them the ideas of natural and man-made objects found in the kindergarten level unit.
7. Explain the contents of the unit kit to your students.
8. Hang the poster in a prominent spot in your classroom.
9. Present the filmstrip to the class. During the showing, elicit discussion of important ideas.
10. Order the **Junior Ecology Club Certificates** from the Division.
11. Proceed with the INDIVIDUAL AND CLASS ACTIVITY CARDS.
12. Present the coloring books at some appropriate point in the unit. Use these as a motivational and teaching tool.
13. At the completion of the unit, present the filmstrip once again as a review activity. Elicit discussion of ideas the children have learned.
14. Administer the posttest to your students.
15. Return all unit components to the box for use by the next class.
16. **Be sure to review and reinforce proper waste disposal habits throughout the school year!**

TIME FRAME

The Level 1 unit will take approximately 25 learning periods (about 5 weeks) to complete. On the average, allow 20-30 minutes per learning period.

If you desire to teach a shortened version of the unit, we recommend you use just the CORE ACTIVITY CARDS. Each CORE ACTIVITY CARD is labeled CORE in the upper left-hand corner. Using just the core activities should cut the required instructional time to 2 or 3 weeks.

Another method is to use the ACTIVITY CARDS and other materials as guidelines for developing your own shortened unit.

The activities in the kindergarten unit should also prove helpful in this regard.

Allow approximately 20 minutes for administering the tests at the beginning and end of the unit. Each filmstrip viewing should take less than 10 minutes. The INDIVIDUAL ACTIVITY CARDS will take about 5 hours of instruction time, as will the CLASS ACTIVITY CARDS. The coloring books will take approximately 40 minutes of instruction time to complete.

EVALUATION INSTRUMENTS

In the inside cover pocket of the unit box, you will find directions for administering short tests to your students. The pretest results should tell you which students are already familiar with the major ideas of the unit and which students may need special help grasping these ideas.

The posttest results will help you determine the effectiveness of your unit.

FILMSTRIP AND CASSETTE

The filmstrip and cassette set provided with this unit is designed for use as both an introductory and review activity. This guide contains a copy of the filmstrip script. The cassette has audible tones and should be used with a manually-operated filmstrip projector. **The filmstrip is brief and is to be used as a teaching tool. During the showing, please stop the projector and cassette as necessary to encourage group discussion of the ideas presented.** The script may be read aloud by an adult if for any reason a cassette recorder is not available or if this delivery method is preferred.

You may wish to present the ideas of natural and man-made objects found in the kindergarten level unit before showing the filmstrip. Before using the ACTIVITY CARDS, present the Level 1 filmstrip to the class as an introduction to the unit. This may be done in small groups or as a total class activity. Present the filmstrip again at the end of the unit as a review of major ideas.

INDIVIDUAL ACTIVITY CARDS (IACs)

The 18 IACs are designed for small groups or individual students. They can be handed out by the teacher, or learning centers can be set up using the IACs as the foundation. For many classes of young children, the IACs may have to be combined with the CLASS ACTIVITY CARDS (CACs) and used as a lesson plan for total class activities. Feel free to modify, restructure,

delete, and create additional IAC activities as necessary. As activities for individual students, the IACs may be used before, after, or in conjunction with the CACs. Take time to explain and discuss the various IAC activities with the class as you proceed through the unit. IACs which provide more advanced activities are marked with asterisks (*).

CLASS ACTIVITY CARDS (CACs)

The 10 CACs provide a sequential set of instructional activities. They are basically a lesson plan presented in card form to simplify modifications, additions, deletions, or restructuring by the teacher. The CACs are designed as total class activities.

COLORING BOOKS

In the kit box you will find a folder containing duplicating masters for the coloring book entitled, Who Causes Litter? Before you teach the unit, duplicate a copy of the coloring book for each student.

At some point in the unit, pass out the coloring books to your students. Read the captions to your class or allow the children to read them out loud. Discuss the illustrations and the theme of the story presented.

After the children color the pages, instruct them to take the books home to share with their families.

Quantities of printed, assembled coloring books are available from the Division of Litter Control on a limited basis.

JUNIOR ECOLOGY CLUB PROGRAM

Since the fall of 1978, the Division of Litter Control has sponsored a successful ECOLOGY CLUB PROGRAM for grades 6-12. Because of the favorable input from teachers in the lower grades, the Division has developed a JUNIOR ECOLOGY CLUB PROGRAM for students in kindergarten through grade 5 who have completed at least one unit of OPERATION WASTE WATCH. To obtain membership certificates for your students, simply **duplicate** the JUNIOR ECOLOGY CLUB ORDER FORM included in this guide and return a completed copy to the Division.

The certificates may be used simply as a final reward for your students once they have completed the OPERATION WASTE WATCH unit, or used to begin an active ecology club program with your class. A list of suggested club activities will be included with your certificates.

COMING IN THE FUTURE

A major advantage of the activity card format used in OPERATION WASTE WATCH is that additional cards may be added and revisions made at minimal expense to the Division.

The Division will continue to evaluate the program throughout the coming years. As a result of this evaluation, new and revised ACTIVITY CARDS will be developed periodically and sent to your school.

ORDERING REPLACEMENT MATERIALS FOR THIS UNIT

Replacement copies of the filmstrip, cassette, poster, teacher's guide, activity cards, and coloring/comic books for this unit may be obtained without charge from the Division of Litter Control.

DUPLICATING MASTERS

This unit contains the duplicating masters listed below. Photocopy these materials as necessary:

1. PRETEST AND POSTTEST
2. WORKSHEET

VOCABULARY

As you proceed through this unit, help your students learn the definitions of the following words. Be sure the children understand the oral definitions of these words, based on their own experiences.

1. LITTER—man-used or man-made solid waste which a person has put in the wrong place or allowed to escape from a container
2. MAN-MADE—anything in our world made by people or machines
3. MAN-USED—anything in our world used by people
4. NATURAL—anything in our world not made by people or machines
5. OBJECT—a physical article or thing
6. USEFUL—anything that makes a task easier to do, or helps us in some way
7. WASTE—anything that is man-made or man-used that cannot be used anymore
8. WASTE BASKET—small container used to hold waste

REFERENCES

1. Division of Sciences and Elementary Administration, Virginia Department of Education. Program Goals and Objectives for Elementary Science. Richmond: n.p., 1978.

2. Keep America Beautiful. Waste in Place—First Grade Level. New York: n.p., 1979.

LEVEL ONE FILMSTRIP

Waste Out of Place (Length: 4:38)

	Narration	Visuals
1.	(Title Slide)	
2.	(Credit Slide)	
3.	Teacher: "Is everyone ready for our picnic?"	Teacher in Front of Class
4.	Teacher: "We have the sandwiches, lemonade, apples, cups, and napkins." Girl: "How about something to put our trash in?"	Class Packing Items for Picnic
5.	Boy: "We could use a wastepaper basket grocery bag, or a big plastic bag."	Wastebasket, Grocery Bag, Plastic Bag
6.	Teacher: "Well, let's take this plastic bag with us."	Teacher with Plastic Bag
7.	Teacher: "Now we're ready. Does everyone have a partner?"	Children Leaving Classroom
8.	Girl: "Can we eat here? This looks like a nice spot."	Class Preparing to Eat
9.	Teacher: "Alright, I know we're all hungry."	Class Preparing to Eat
10.	(Shot of everyone eating)	Children Eating
11.	(Shot of everyone eating)	Children Eating

12. Several Children: "Look, some of our things are blowing away!" Girl: "There goes my cup and plate!"	Litter on Grass
13. Girl: "Look at this mess!"	Shot of Girl
14. Teacher: "You're right. Our trash is becoming litter! Let's clean it up."	Shot of Teacher
15. (Clean-up Slide)	Children Picking Up Litter
16. Teacher: "Trash that is littered is an ugly sight and can keep other people from enjoying the park."	Children Picking Up Litter
17. Teacher: "We used the bags to keep our sandwiches in, and we needed the cups for our lemonade. But now that we don't need them for our picnic anymore, they have become waste."	Teacher Holding Plastic Bag
18. Girl: "If we leave our trash on the ground instead of putting it in a garbage bag or trash can, then we are littering, right?"	Children Talking
19. Teacher: "That's exactly correct. I'm glad we remembered to bring our plastic bag along with us."	Children Putting Trash in Plastic Bag
20. Teacher: "Well, you found lots of litter. Let's play a game with it. Let's divide this waste into two piles—one of natural and one of man-made objects. Who remembers the difference between natural and man-made objects?"	Class Examining Trash
21. Girl: "I think I remember. Natural objects are things that people or machines can't make—like an apple tree, a bird, and a rock."	Close-up of Girl
22. Boy: "And man-made objects are things that people do make. Like houses, and barns and trucks."	Close-Up of Boy

23. Teacher: "That's right, James. And both natural and man-made objects can end up as trash. Who would like to try grouping these things into natural and man-made objects? Give it a try, Bill." — Boy Examining Trash

24. Boy: "I think the can, spoon, paper, and cup should go here. And the apple and branch in the other group." — Trash on Grass

25. Teacher: "That's right, Now let's make two **new** piles with these same objects. Who can tell us which things will stay the same for a long time and which ones will change after being outside for a little while?" — Trash on Grass

26. Boy: "This is really tricky—but I'll give it a try." — Boy Grouping Objects

27. Boy: "I think the aluminum can, the spoon, and the cup will go into one group because they won't change much or rot away. And I think the tree branch, apple, and paper will go into another group because they will rot away and go back into the soil before too long." — Group of Objects

28. Teacher: "I'm proud of you, James. That was really hard. Man-made objects that won't rot away make the **worst** kind of litter—like glass, plastic, and aluminum. They will stay on the ground a long, long time and can often hurt people and animals." — Close-Up of Teacher

29. Teacher: "We certainly did a lot today. Besides having a picnic, we found out that some of the things we needed for our picnic we don't need anymore. These things became waste, and waste can be made of natural or man-made objects." — Class With Waste Objects

LEVEL 1
TEACHER CARD
OPERATION WASTE WATCH
VIRGINIA DIVISION OF LITTER CONTROL

Waste Out of Place
Individual Activity Cards

Introduce the INDIVIDUAL ACTIVITY CARDS after all the students have seen the filmstrip. The 18 IACs are designed for small groups of children or individual students. However, the IACs may be used as total class activities, if it is not feasible to carry out individual or small group activities with your class. For most cards someone (you, an aide, or a parent) will have to read the directions to the students.

There are several ways to use the IACs:

1. Since many of the cards require verbal responses, **one group of students could work with you** on a few of the cards while an aide or other adult uses other cards with the rest of the children.
2. Another way to manage the IACs is to use three or four IACs at one time set up at a **Learning Center**. Let the majority of the students work on other tasks while you assist a small group with the IACs.
3. You may decide to **put the IACs on audiotape.** Small groups of children could then use the cassette player while you work with the rest of the class.
4. Another idea is to **photocopy several additional sets** of the IACs so that small groups of children can work on the IACs simultaneously.
5. You may decide to simply **combine the IACs with the CACs** and use them as total class activities.

The IACs may be used before, after, or in conjunction with the CLASS ACTIVITY CARDS (CACs). Cards containing more difficult activities are marked with asterisks (*) in the upper right-hand corners. Level 1 IACs need not be completed in numbered sequence. To shorten the unit from approximately 5 weeks to 2 or 3 weeks, we suggest that you use only the CORE IACs and CACs. Core cards are labeled CORE in the upper left-hand corners.

IDEA AND OBJECTIVE NOTATIONS REFER TO NUMBERED IDEAS AND UNIT OBJECTIVES ON PAGES 1 AND 2 OF THE TEACHER GUIDE.

You will need to develop a large collection of pictures for several of the IACs. Put a collection of pictures in each of 4 or 5 boxes labeled "PICTURE BOX." Many children will be glad to help collect these pictures. The Level 1 IACs continue the emphasis on classification skills begun in the kindergarten unit, while introducing the concepts of useful and waste objects.

For IAC-5, you will need some crackers wrapped in cellophane.

For IAC-17, you will need some ice cubes, apples, a glass bottle, an aluminum drink can, small rocks, pieces of bread and paper, and an open box.

NOTE: IACs 1, 2, and 3 refer to the ideas of **natural and man-made** objects developed in the kindergarten unit of OPERATION WASTE WATCH.

For safety's sake, before beginning the unit instruct the children to pick up only "safe" litter—like paper and plastic, never glass or sharp metal objects.

CORE

Picture Box Game

Get a PICTURE BOX from your teacher. Find six pictures you like. Put them on top of your desk.

Now look at the pictures on your desk. Put pictures of natural objects in one pile. Put pictures of man-made objects in another pile.

Show your teacher what you have done.

CORE

Magazine Cut-Outs

When you go home today, cut out four pictures you like from magazines. Bring the four pictures to school.

Go on to IAC-3/18

CORE

Pictures From Home

Look at the four pictures you brought from home.

Paste the pictures on a piece of paper.

Draw a circle around any pictures of natural objects.

Draw an "X" through any pictures of man-made objects.

Show your teacher the pictures.

Useful Objects

Find three things in your classroom that help people. These objects are **useful** objects.

Draw a picture showing the three things.

Give the picture to your teacher.

Now think of three things in your house that are useful. Say the names of these things.

CORE

Snack Time!

Take some crackers from the teacher's desk. Unwrap the crackers and eat them. Why were the crackers wrapped? After you eat the crackers, is the wrapper a **useful** or a **waste** object?

That's right, it's now a waste object. Put the wrapper in the wastebasket.

Waste Objects

Look around the classroom. Do you see any **waste** objects?

Look out the window. Do you see any waste objects outside?

Pick up something that is waste in the classroom. Put it in the wastebasket.

Play a Game With a Friend

Find three pictures of **useful objects** in a PICTURE BOX. Then find three pictures of **waste objects.** Mix up the pictures. Ask a friend to group them into waste objects and useful objects.

Is Litter Ugly or Pretty?

Litter is trash or waste people have put in the wrong place.

Look through the PICTURE BOX. Find three pictures of things which can become litter, like bottles and paper.

Draw a picture of a child putting litter into a wastebasket. Give your picture to your teacher.

Cleanup Time

Remember: Litter is waste put in the wrong place by people.

Look around your classroom. Do you see any litter? How did this waste get in the wrong place? If you see any litter, pick it up and put it in the wastebasket.

Hallway Litter

When you walk down the hallway, look for litter.

Bring the litter back to the classroom. How did the litter get in the hall?

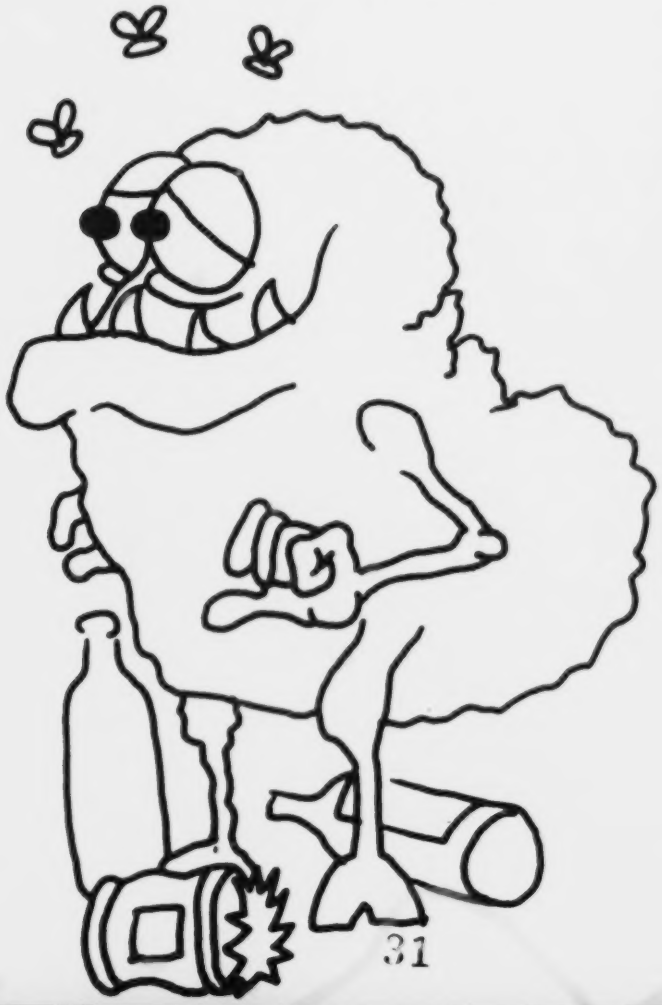
Throw the litter in the wastebasket.

Remember: Litter is waste people put in the wrong place.

Do Litterbugs Bug You?

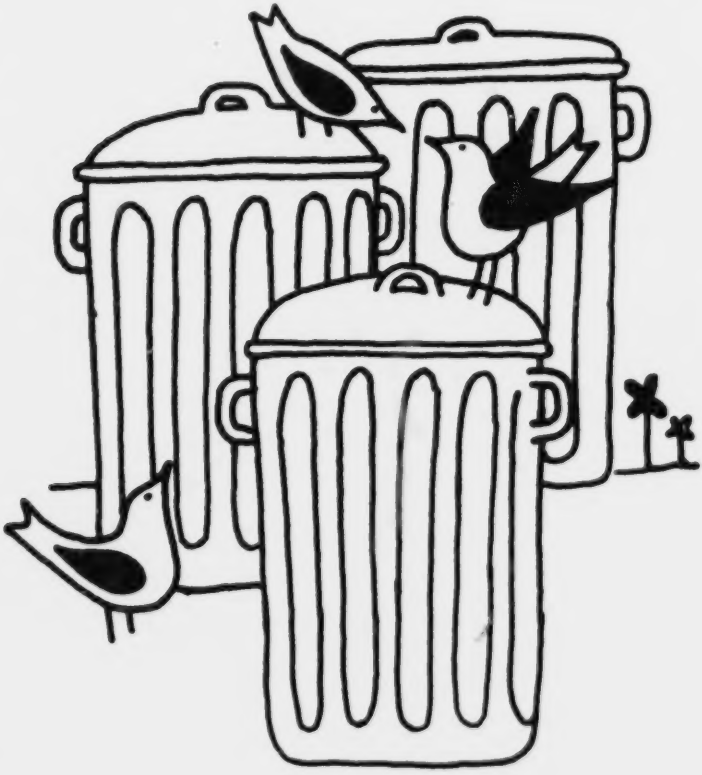
A litterbug is someone who litters his trash instead of putting it in a wastebasket or trash can.

Draw a scary or a funny picture of a "litterbug!"



Stop Litter Now!

Draw pictures of three things that can help stop litter, like a trash can or a litter bag.



Helping at Home

Draw a picture of your family putting trash in the correct place.

Pickup Contest

Make a litter bag by decorating a paper grocery bag. Tape the bag to the side of your desk. Put your trash in this bag. Empty it into the wastebasket at the end of the day. When you pick up litter in your classroom, put it in your litter bag.

Keep a paper at your desk and put a mark on it each time you pick up a piece of litter and put it in your litter bag. Add all the marks up at the end of the day.

Have a contest with your friend—see who has the most marks at the end of the day. Try it for a whole week.

Remember: Litter is waste put in the wrong place by people.

Litter Prevention Badges

Make an anti-litter badge or button. Wear it around the school all day. Tell people that littering is wrong.

Make badges for your teacher, your family, and your neighbors to wear.

Changes

Look through the PICTURE BOX. Find three pictures of things that will not change or will change very slowly. Then find three pictures of things that will change very quickly.

(For example, a rock changes very slowly, but a cloud changes quickly.)

Experiment—Find Out What Changes!

Get an ice cube, an apple or an apple core, a rock, a glass bottle, a drink can, a piece of paper, a piece of plastic, and a piece of bread. Put them outside the window in an open box. Which things are man-made objects and which are natural objects? Check them at the end of the day. Check them tomorrow morning. Has anything happened to change them?

Which man-made objects changed?

Which natural objects changed?

Keep the box outside for several weeks. Continue to check the objects often to see if and how they change.

Things That Change Slowly

If someone litters a glass bottle, an aluminum drink can, and a piece of plastic, do you think this litter will stay on the ground a long time or will these objects change quickly and disappear?

LEVEL 1
TEACHER CARD
OPERATION WASTE WATCH
VIRGINIA DIVISION OF LITTER CONTROL

Waste Out of Place
Class Activity Cards

The 10 CLASS ACTIVITY CARDS (CACs) are designed for you to use with the whole class or a large group of students. Used in numerical order, these cards present a suggested sequence of activities to help develop the ideas of useful and waste objects and litter. The CACs should be used after the students have seen the filmstrip, and before, after, or in conjunction with the INDIVIDUAL ACTIVITY CARDS (IACs). At the completion of the CACs, present the filmstrip again as a review activity.

The Level 1 CLASS ACTIVITY CARDS are designed to encourage young children to become actively involved in the collection and redistribution of waste in their immediate environment. The activities also focus on the concept of recycling at a level appropriate to the abilities of young children.

To shorten the unit, use only the CACs which present core activities. These CORE ACTIVITY CARDS are labeled CORE in the upper left-hand corners.

IDEA AND OBJECTIVE NOTATIONS REFER TO NUMBERED IDEAS AND UNIT OBJECTIVES ON PAGES 1 AND 2 OF THE TEACHER GUIDE.

Be sure to find out what your community is doing to fight the littering problem. Contact the Division of Litter Control or your local government for information. Explain the local program to your students.

CORE

Treats

As a review, give each child wrapped crackers, fruit, or vegetable sticks wrapped in foil or plastic wrap. Ask them to tell you whether or not the wrapper is **useful** and why or why not.

Ask them to unwrap the treat and eat it. Afterward, ask them to tell you whether or not the wrapper is still **useful** or whether it has become **waste.**

Ask one-half of the class to drop the wrappers on the floor. Ask what this action is called. (The correct response is "littering.")

Ask each child in the class to put his or her wrapper in the correct receptacle so no one will be littering.

Useful and Waste Objects

Ask the children to look around the classroom. Ask them to pick out five useful and five waste objects. Make lists of the objects on the blackboard and draw a small picture of each object. Write the word "useful" on the board above the list of useful objects and elicit a verbal definition for "useful." Write the word "waste" above the list of waste objects. Ask the children to put the waste in the proper place.

Ask several children to use several objects in the classroom while the rest of the class observes them.

Ask one child to touch a waste object in the classroom.

Litter

Ask the class to find examples of waste in the classroom which are also **litter.** Ask for a definition of "litter." Ask the children what people should do with litter. Ask the children to put all the litter in the trash can.

Ask the children to look for litter in their bedrooms at home tonight.

Ask them to put all the litter they find in their bedrooms in a wastebasket in their house.

Classifying Waste

For the next several days, save all the clean waste from your classroom in a large container. After a few days ask the class to group the different kinds of objects in the container into the following groups:

paper — plastic — glass — metal

Did the class discover any other categories? Ask the students whether some of the objects are still **useful** objects rather than **waste** objects. Some objects may be reused or recycled by your class.

Go on to CAC-5/10

CORE

Ask the students "What type of waste do we have the most of?" Ask them if the most abundant waste is "man-made" or "natural" waste.

Go on to CAC-6/10

OPERATION WASTE WATCH **CAC-6/10**
LEVEL 1

CORE

Ask each child to pick out one of the **waste** objects and tell how he or she could make something new from it or do something **new** with it.

Help the student **reuse** some of the **waste** items to make new things. Ask the class to bring one waste object from home to make into a new object or to reuse in some way.

Go on to CAC-7/10

OPERATION WASTE WATCH **CAC-7/10**
LEVEL 1

CORE

Explain to the class that some waste objects they cannot seem to find a use for can still be reused.

Tell the class that paper, glass, and aluminum waste objects can often be made into new things in special factories. This is called **RECYCLING.**

Recycling

Contact the Division of Litter Control for information on how to set up a recycling program in your school.

Ask the class to start saving waste objects at school that can be recycled in your community. You may need to get a large box for each kind of waste object. Label each box.

The students might also want to save waste objects at home or bring them to class to add to the recycling boxes.

Go on to CAC-9/10

Hopefully, you can find someone who will buy some of the waste objects that your class has collected (e.g. at Reynolds Aluminum collection stations). The class will then have to decide what to spend money on. Perhaps they can purchase a trash container for the school or playground or buy some plants and flowers to beautify the school yard.

Go on to CAC-11/11

If you decide to buy a trash container, help the children write a letter to the local sanitation department or the Division of Litter Control to get information on purchasing trash receptacles. Also, help compose a letter to the principal about giving the receptacle to the school.

You could let the children decorate the trash receptacle by painting it. Let the class decide where to put the receptacle. Take the children on a walk around your school or neighborhood to decide where most litter is located. This spot may be the best place for the receptacle.

END

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